# 6 ALL THAT GLITTERS Mineralogy



The Reverend George Wight, in an address to the Queensland Philosophical Society on 18 May 1867, suggested that 'the appointment of a practical geologist' would be 'the best, the cheapest, and speediest means of guiding and aiding the development of the vast natural resources of Queensland'<sup>1</sup>.

During the decade up to 1867 there had been gold finds in Queensland, drawing new settlers to the colony, increasing its populations and bringing dreams of wealth. Then, in September 1867, alluvial gold was found at Cape River and the rich find at Gympie came soon afterwards.

On 9 January 1869 the Legislative Assembly debated, and carried, the following resolutions:

- 1 That the speedy development of the mineral wealth of the colony is a matter of the greatest importance and ought to engage the serious attention of the government.
- 2 That, in the opinion of this House it would be wise to engage qualified persons who shall devote their services to the above object.
- 3 That an address be transmitted to the Administration of the Government praying that His Excellency will be pleased to cause the necessary steps to be taken to carry out these steps<sup>2</sup>.

So, in 1868 the Queensland government responded to Wight's suggestion and appointed two government geologists, Richard Daintree for northern Queensland and Christopher D'Oyly Hale Aplin for southern Queensland. The appointments were seen officially, and no doubt unofficially too, as being practical in nature—the geologists being expected to find workable mineral deposits that would boost state development and finances, rather than to investigate the regional geology of Queensland. This view of the practical and economic use of mineralogy would continue to dominate the development of the Queensland Museum's collections.

The appointees to the government positions were both experienced geologists, Daintree had left the Victorian Geological Survey in 1864 to pursue mining and pastoral activities in northern Queensland. Aplin had originally emigrated to Australia in 1842 but had returned to England and studied geology there. In 1852 he had come back to Australia and with his brother had gone to the Victorian goldfields. In 1856 he joined the Victorian Geological Survey until he came to Queensland. He was then 49<sup>1</sup>.

The work that Daintree and Aplin did was essentially preliminary but the government was disappointed that there were no immediate and dramatic results and the survey was terminated at the end of 1869<sup>2</sup>. Aplin moved to Maryborough and bought a sugar plantation. Daintree continued his field-work until, in 1871, he went to London to arrange Queensland's contribution to the London Exhibition in that year and while there became the Queensland agent-general<sup>3</sup>.

## Minerals for Miners

In the debate in the Legislative Assembly on 17 June 1869 that followed the termination of the geological surveys, the proposition was put that —

it is desirable to establish, in Brisbane, a museum and laboratory.....for the purposes of collecting and exhibiting and analysing, when required, all minerals, forwarded to the institution<sup>2</sup>.

#### The purpose of the museum would be to-

incubate a love for information upon the subject of our own resources, and interest ..... the people ..... in these subjects, which were of the greatest advantage to the colony<sup>2</sup>.

Previous page: The main street of Gympie mining town, 1868.

The speaker — the member for Maryborough, W.H. Walsh, who became secretary for Public Works in 1872–3 — drew attention to the benefits that New Zealand had derived from its Colonial Museum. Members enthusiastically supported the museum proposal and D'Oyly Aplin's name was mentioned in connection with it. It was not until 1870 that £100 was set aside to establish the museum. In the same session there was a resolution to spend £1000 on 'Specimens of Gold and Auriferous Quartz from the Queensland Gold Fields to be sent to the Exhibition in London'<sup>4</sup> — no doubt to advertise the colony.

On 1 June 1871 D'Oyly Aplin, having heard of the vote of £100 to set up the mineralogical museum, wrote to the minister of Public Works offering to undertake the work and his offer was accepted. He completed the job by 6 September 1871 but had spent most of the £100 on materials<sup>5</sup>. On requesting payment for his work, he was instructed to hand the collections to Charles Coxen, the honorary curator of the museum (see Chapters 3, 4). Aplin was never paid<sup>2</sup>. Although he later received a government appointment, as police magistrate in charge of the settlement at Somerset near Cape York, it was not until September 1874<sup>1</sup>.

At the beginning of 1873 K.T. Staiger was appointed as custodian of the museum and government analytical chemist, a combination of duties that may have given rise to the view that the museum 'emanated noxious gases'<sup>6</sup>. Certainly the combination reflected the practical situation seen as existing between mineral collections, the economic value of minerals and assistance to prospectors for much of Staiger's chemical work was mineral assaying. He took over the two small rooms in the old Parliamentary building in which the museum was then housed, but soon obtained the use of rooms in the nearby old Post Office building<sup>7</sup>. A mineral display was set up in one and Staiger used the other room for his assay work. Richard Daintree, then agent general for Queensland in London, corresponded with Staiger concerning the presentation of the mineral collection, recommending the arrangement of specimens and photographs previously used by him in various international exhibitions, and stressing the practical economic significance of the displays<sup>8</sup>. To do as Daintree suggested Staiger needed yet more space, but when he got it it rapidly filled with general museum collections and Daintree's plans for geological displays of Queensland were never realised.

### Minerals for a Museum

The mineral collections under Staiger's care were not very large and attempts were made to increase them by donation, by exchange and by purchase. In May 1878 the collections consisted only of 300 specimens, of which 150 represented material apparently obtained through exchange with the Italian government. The Italian collection was claimed by Nehemiah Bartley who was a wealthy land-owner — his property included what is now known as Bartley's Hill, a suburban look-out on the outskirts of Brisbane. Bartley had set up a private mineralogical collection which he had tried to sell to the government in 18749. He had had some correspondence with the museum board regarding sales of specimenswhich the board had thought were donations. The board had returned the specimens immediately<sup>10</sup>. Apparently Bartley assumed that this collection from the Italian government was in exchange for specimens he had sent. After considerable discussion, settlement was reached by allowing him to take 50 specimens<sup>11</sup>. Even though the museum collection of minerals was so small the board, on 7 March 1876, agreed to send mineral specimens to Oakev Primary school.



Richard Daintree, government geologist for north Queensland 1868-71



Christopher D'Oyly Aplin, government geologist for south Queensland 1868-69.

With the move to the William Street building there was more space and a better presentation of the minerals and rocks was possible. They were displayed on the ground floor of the building and were classified by chemical composition, locality and economic use. However, the collections were still very small. Accordingly, a more active policy of increasing the mineral collections by exchange with organisations and individuals was instituted in 1880 by the curator, W.A. Haswell. This was not altogether satisfactory, and a geological collector, Alex Macpherson, was appointed in 1881. However, Kendall Broadbent, a zoological collector of outstanding merit was available for appointment and in May 1883 the new curator, de Vis, created a vacancy for Broadbent by making Macpherson an attendant (see Chapter 3). In November 1883 de Vis observed to the board that the mineral collections were being neglected. An approach was made to the Mines Department requesting gold wardens and other officers to be instructed to forward mineral specimens, particularly of ore minerals, to the museum-but there was not a marked response<sup>12</sup>. Then, there having been a fire in the Australian Museum, the trustees, on 3 December 1882, offered duplicates from the Queensland Museum to help 'the parent colony in recuperation of its loss'. The offer was accepted.

Early in 1884 a direct method of adding to the mineral collections was instituted by again appointing a geological collector — H.F. Wallmann. His detailed list of duties included geological mapping as well as collecting<sup>13</sup>. Wallmann collected minerals, rocks and fossils in the Sandgate, Stanthorpe and Gymple areas and began a geological investigation of the Gymple Goldfield. However, the board commented on his travelling expenses and expressed dissatisfaction with the paucity of results. Wallmann resigned early in 1885<sup>14</sup>. He did not part on good terms with the board. There was a difference regarding maps and reports that the board at first insisted were museum property<sup>15</sup>. However, this problem appears to have been resolved and the papers were returned to Wallman. He appears to have maintained a regard for the museum for he continued to donate specimens. Not so the trustees, who would not even consider reappointing him on the two occasions he applied, and also refused to lend him specimens.

During 1885 the museum was represented on, and was involved with assistance to, the Commission in Queensland of the Colonial and Indian Exhibition, to be held in London in 1886. A.W. Clarke, later to be the government mineralogical lecturer, was appointed by the Commission to collect Queensland specimens, for, as Clarke pointed out in his preface to the mineralogical catalogue for the exhibition 'the colony has as yet no mineralogical department or collection to draw on for display on these occasions'. This was both a reflection on the museum's collections and of board policy to allow only duplicate specimens out of the museum<sup>16</sup>. Some 1400 specimens, all with a strong economic bias, were collected for display at the exhibition.

Early in 1886 steps were taken to fill the vacant position of museum geological collector and E.B. Lindon, an associate of The Royal School of Mines, London, was appointed in May. Unfortunately, adequate provision was not made in the estimates for a travelling allowance and Lindon was largely restricted to office work and maintenance of collections. Perhaps fortunately, de Vis had made provision for the purchase of a polarising microscope. Lindon made only one trip—to Glenlyon to examine the caves and reported that frequent flooding had prevented deposition of fossil material<sup>17</sup>. Lindon's main contribution in the short time he was at the museum was the preparation of a catalogue of Queensland minerals and

localities. He resigned in the middle of 1887 and was shortly after replaced as geological collector by Henry Hurst who had earlier offered to perform, on trial without salary, the duties of clerk and librarian<sup>16</sup> Hurst began collecting, largely fossils, on the Darling Downs. During 1888 he was involved with the preparation of mineral specimens for the Queensland Court at the Centennial Exhibition in Melbourne and he travelled there to arrange the display<sup>16</sup>. Afterwards a considerable part of the material donated for this exhibition came to the museum.

The records of museum board meetings during 1888 suggest that views of the practical use of mineral collections were still predominant. The educational use of the collections was recognized in the supply of material for teaching purposes to a number of schools<sup>30</sup>. The need for a laboratory for analysis of specimens and practical assistance was again noted. At the end of 1888 most of the gold specimens were stolen from the museum's mineralogical displays<sup>21</sup> and the loss was never overcome. The curator's report to the February 1889 board meeting assigns a higher than usual priority to the mineral collections. Due to lack of space, or the return of the specimens from the Centennial Exhibition in Melbourne, de Vis proposed removal of most of the contents of the zoological cases on the ground floor to make way for minerals<sup>22</sup>.

In the 1890s drought, depressed economic conditions and industrial troubles had an influence on the museum and its staff and all its activities were reduced. 1891 was a particularly bad year — silverfish were defacing the labels in the mineral cases and Hurst, the collector, was dismissed at the end of the year. He never had inspired the board's confidence, although de Vis usually appears to have supported him. In the end he 'abandoned his position', disappeared from Brisbane 'and was dismissed'2'.

In April 1892 Hurst was replaced by H.G. Stokes with the title of mineralogical assistant. Stokes had been donating and exchanging specimens with the museum over several years. A condition of his employment was that he should perform assays of mineral specimens required by the Mines Department and apparatus and chemicals were to be obtained<sup>24</sup>. At last a chemical laboratory had been re-established. Stokes' work was largely in the office, testing and reporting on prospectors' samples. He was also involved with a number of exchanges with overseas organizations. However, in June 1893, with the reduction of the staff to three and the office boy, he was retrenched<sup>25</sup>.

Even under these conditions, there was still some activity with the mineral collections. Collections were prepared for exhibitions and specimens were received by purchase, exchange and donation. As a continuation of its educational service, a mineral collection was provided for the South Brisbane School of Arts in 1894<sup>26</sup>, while in 1897 the museum loaned mineral specimens to the government geologist for display at Queensland's International Exhibition<sup>27</sup>. Perhaps the brightest point in this difficult decade was the move in 1899 to the Exhibition building. At the time there was a proposal that the Geological Survey of Queensland should occupy the same building. However, each organisation felt that there was insufficient space even for its own need, and the proposal was not taken any further<sup>38</sup>.

# A Museum Mineral Collection

Early in 1900, with the installation of the museum in the Exhibition building under way, J.A. Smith was employed to prepare the mineral exhibits. He is described as mineralogist and later as assistant in the industrial department. He resigned from August 1902, and was followed by J. Lamb—originally appointed as 'packer' for the move to the new location—who was a painter by trade<sup>29,30</sup>. Discussions were held with B. Dunstan, acting government geologist, about the possible transfer of Geological Survey collections to the museum but no arrangements were made at the time<sup>31</sup>. The Geological Survey collection was to come to the museum in 1979.

With the appointment of R. Hamlyn-Harris as director in 1911, there seems to have been more activity as far as the mineralogical collections were concerned. A new mineral register was begun and older material recatalogued. Hamlyn-Harris actively sought geological material from mines departments in other states. The museum supplied duplicate geological specimens to the University of Queensland then being set up<sup>32</sup>.

After this there seems to have followed a long period when the mineral collection was more or less neglected. Staff from the geology department of the University of Queensland, particularly H.C. Richards, had an association with the museum in an honorary capacity<sup>33</sup>. In 1949 J.T. Woods was appointed to the newly established position of curator of geology. This position naturally involved responsibility for the mineral collections, although he, and following appointees to this position, have been primarily palaeontologists. Woods was followed by A. Bartholomai (1959), P. Jell (1969), and M. Wade (1971). In 1975 responsibility for the collections was transferred to the newly appointed curator of industrial technology – I.G. Sanker – on the premise that minerals are obtained from mining activities and so are products of industrial technology. Over the last 30 years the size of the registered collections has increased from 1800 in 1948 to approximately 14,000 in 1986. This has come about by the transfer of some 4000 specimens from the Geological Survey collections, by field collecting, by donations and purchases and by cataloguing of previously unregistered material. The federal government's Taxation Incentives for the Arts Scheme, instituted in 1978 to encourage donations to museums and similar institutions, resulted in the donation to the museum of extensive and valuable opal collections as well as mineral specimens.

The museum's mineralogy collection is reasonably substantial in size and contains specimens of good quality and historical significance collected by prominent geologists or from long abandoned mines. At this stage it is not an altogether comprehensive collection. It reflects the fact that it has never had the sustained attention of an appropriately qualified curator — a staff mineralogist — whose studies could identify the gaps in the collection and who could make it a complete archive of the mineralogy of the state. Although, in the early days, there was indeed great interest, it was a practical rather than scientific interest and many important minerals were not collected. Since then there have been attempts to increase holdings and to have technically qualified staff appointed and this did happen on several occasions. However, there were reasons-usually economic—why they never stayed long, and over most of its history the mineralogy collection has been treated passively-cared for, but seldom systematically developed and never the subject of scientific investigation. Thus, while some research on the collections has been carried out by outside research workers, there has not been a qualified and interested mineralogist on the museum staff and no research is being done within the museum.



A photograph, possibly of his colleague – explorer William Hann – taken by Richard Daintree at the Clarke River, northern Queensland.